

**ABSTRACT OF THE DISCLOSURE**

A system for dynamically monitoring the stability of manufacturing equipment comprises a process executor requesting a plurality of semi-manufactured products processed by the manufacturing equipment to be inspected at a first sampling rate and receiving a plurality of inspection results, a data processor analyzing the inspection results from the process executor to determine a second sampling rate, a storage device storing the second sampling rate, and a controller receiving the second sampling rate from the storage device and changing the first sampling rate of the inspection requested by the process executor to the second sampling rate.